

### REMARKS

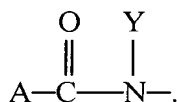
Withdrawal of the final rejection and favorable reconsideration and allowance of the present application based on the following remarks are respectfully requested.

Claims 2-3 and 9-27, as amended remain pending in this application. The previous indication of allowability of claims 22, 23 and 25 or 27 is acknowledged with appreciation. For the reasons set forth below, it is respectfully submitted that claims 2, 3, 9-21, and 24-27 are in condition for allowance. Each of the independent claims 2, 25 and 27 are amended for clarity and to exclude the embodiment wherein when the group A is a polymer, the polymer is an addition polymer. That is, as presently claimed, in all embodiments wherein A represents a polymer the polymer is a condensation polymer.

Applicants first take this opportunity to thank the Examiner for the courtesies extended to Applicants' undersigned representative at the in-person and subsequent telephonic interviews

As required by MPEP 713.04, the following more detailed substance of the interview is provided below.

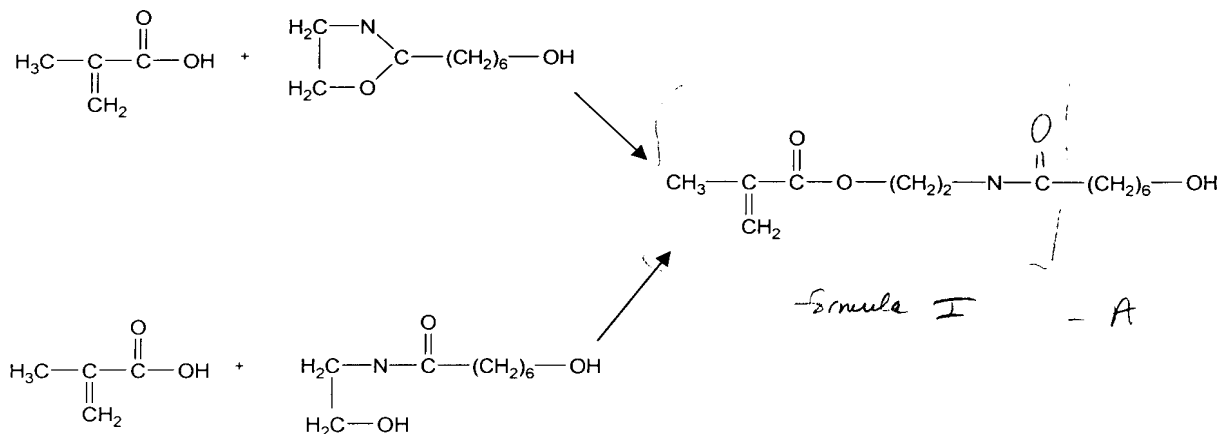
During the in-person interview, it was explained that the language of the independent claims, (of which claim 2, was specifically identified, however the same language appears in the other independent claims) should be, and necessarily requires a construction in which the group A, whether a monovalent or polyvalent organic group or a polymer P, is bonded to the carbon atom, C, of the carbonyl group (C=O) by a carbon-to-carbon double bond. The carbon-to-carbon bond conforms the claimed radiation curable compound of formula (I) which includes the alkylamide group:



That is, it was explained that "A" is part of the alkylamide whereas the  $\beta$ ,  $\gamma$ ,  $\delta$  or  $\epsilon$ -hydroxy is spaced by 2, 3, 4 or 5 carbons from the N- of the amide group depending on the value of "m" being 1-4, respectively. In this regard, it was further noted that the  $\beta$ ,  $\gamma$ ,  $\delta$ , or  $\epsilon$ -hydroxy forms the ester group with the carboxyl group of the  $\alpha,\beta$ -ethylenically unsaturated carboxylic acid.

At the in-person interview, a brief discussion and illustration of the reaction taking place in Experiment 1 on page 12, was provided. The following reaction was shown, wherein the upper reactants were those used in Experiment 1 (i.e., methacrylic acid and  $\epsilon$ -hydroxy-

pentyl oxazoline) while the lower reaction represents the corresponding linear  $\beta$ -hydroxy group compound:



At the in-person interview and again during the telephonic interview, it was also acknowledged that Experiment 6 on page 15 of the specification, is a "comparison" or "control" example since there is no reaction between an alkylamide and or equivalent (e.g., isoxazoline compound, as in Experiment 1, page 12) and the resulting product is a urethane acrylate. Thus, the compound of Experiment 6 does not fall within the scope of the pending claims.

In view of the Examiner's concern that the term "comprising" caused some degree of confusion, the "comprising" language has been replaced by --which is--. In addition, the recitation defining the carboxylic ester being derived from the alpha, beta-ethylenically unsaturated carboxylic acid is deleted as redundant since this is already shown in formula (I).

Accordingly, since the prior art compounds of Nason et al, US 4,656,202 (US 202) are urethane group-containing compounds and not alkylamide group-containing compounds, it was understood that the rejection relying on US 202 would be withdrawn.

Turning to the subsequent telephonic interview, the Examiner called Applicants' attention to US 3,928,499 to Tomalia et al (US 499).

Since US 499 only discloses substantially linear vinyl addition polymers there is no suggestion of the radiation curable compounds of the present invention in which, when the group "A" is a polymer P, the polymer is a condensation polymer.

Accordingly, the pending claims are believed to be fully patentable over US 499.

In view of the foregoing, the claims are now believed to be in form for allowance, and such action is hereby solicited. If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the undersigned at the telephone number listed below.

Attached is a marked-up version of the changes made to the specification and claims by the current amendment. The attached Appendix is captioned **"Version with markings to show changes made"**.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,  
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Enclosure: Appendix

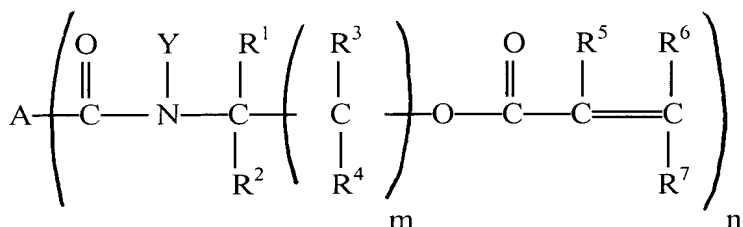


# APPENDIX

## VERSION WITH MARKINGS TO SHOW CHANGES MADE

### IN THE CLAIMS:

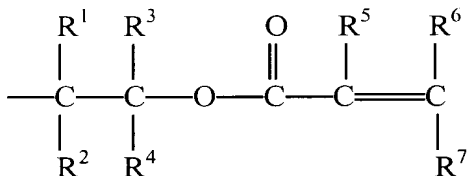
2. (Twice Amended) A radiation curable compound ~~comprising~~ represented by the following formula (I) and which is a mono or multi valent carboxylic acid ester of a  $\beta$ ,  $\gamma$ ,  $\delta$  or  $\epsilon$ -hydroxy-alkylamide group containing compound, ~~in which the carboxylic ester is derived from and an  $\alpha$ ,  $\beta$ -ethylenically unsaturated carboxylic acid, wherein the radiation curable compound is a compound according to formula (I):~~



where:

A = hydrogen, or a monovalent or polyvalent organic group which is derived from a saturated or an unsaturated ( $\text{C}_1$ - $\text{C}_{60}$ ) alkyl, derived from an ( $\text{C}_6$ - $\text{C}_{10}$ ) aryl group, or a condensation polymer P;

Y = hydrogen, an alkyl group having from 1 to 8 carbon atoms or



$\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^4$  are, identical or different, hydrogen or a linear, branched or cyclic ( $\text{C}_1$ - $\text{C}_8$ ) alkyl chain,

$\text{R}^5$  = hydrogen, ( $\text{C}_1$ - $\text{C}_5$ ) alkyl,  $-\text{CH}_2\text{OH}$  or  $\text{CH}_2\text{COOX}$ ,

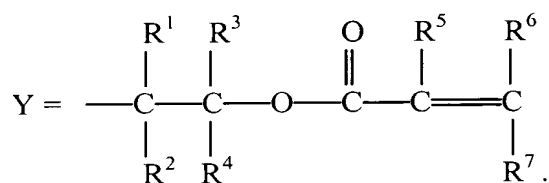
$\text{R}^6$ ,  $\text{R}^7$  = hydrogen, ( $\text{C}_1$ - $\text{C}_8$ ) alkyl, ( $\text{C}_6$ - $\text{C}_{10}$ ) aryl or  $\text{COOX}$ ,

X = hydrogen or ( $\text{C}_1$ - $\text{C}_8$ ) alkyl,

n = 1-1000 and

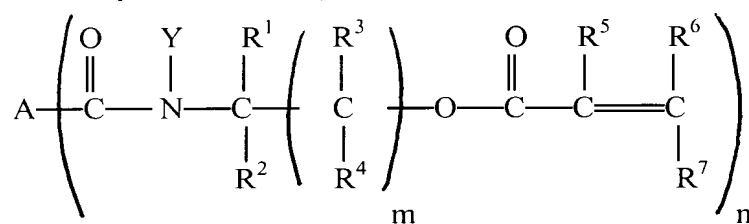
m = 1-4,

with the proviso that when n = 1,



24. (Twice Amended) Compound according to claim 2, wherein in formula (I) A represents a said monovalent or polyvalent organic group derived from a condensation polymer P.

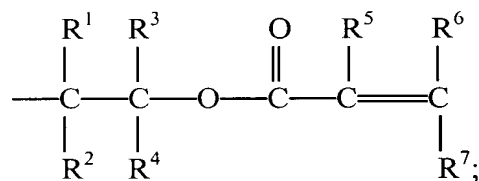
25. (Twice Amended) A radiation curable compound ~~comprising~~ represented by the following formula (I) and which is a mono or multi valent carboxylic acid ester of a  $\beta$ ,  $\gamma$ ,  $\delta$  or  $\epsilon$ -hydroxy-alkylamide group containing compound, ~~in which the carboxylic ester is derived from and an  $\alpha$ ,  $\beta$ -ethylenically unsaturated carboxylic acid, wherein the radiation curable compound is a compound according to formula (I):~~



where:

A = hydrogen, or a monovalent or polyvalent organic group which is derived from a saturated or an unsaturated ( $\text{C}_1$ - $\text{C}_{60}$ ) alkyl, from an ( $\text{C}_6$ - $\text{C}_{10}$ ) aryl group, or a polymer P;

Y = hydrogen, an alkyl group having from 1 to 8 carbon atoms or



$\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^4$  are, identical or different, hydrogen or a linear, branched or cyclic ( $\text{C}_1$ - $\text{C}_8$ ) alkyl chain;

$\text{R}^5$  = hydrogen, ( $\text{C}_1$ - $\text{C}_5$ ) alkyl,  $-\text{CH}_2\text{OH}$  or  $\text{CH}_2\text{COOX}$ ;

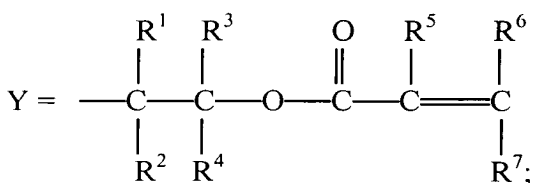
$\text{R}^6$ ,  $\text{R}^7$  = hydrogen, ( $\text{C}_1$ - $\text{C}_8$ ) alkyl, ( $\text{C}_6$ - $\text{C}_{10}$ ) aryl or  $\text{COOX}$ ;

X = hydrogen or ( $\text{C}_1$ - $\text{C}_8$ ) alkyl;

n = 1-1000 and

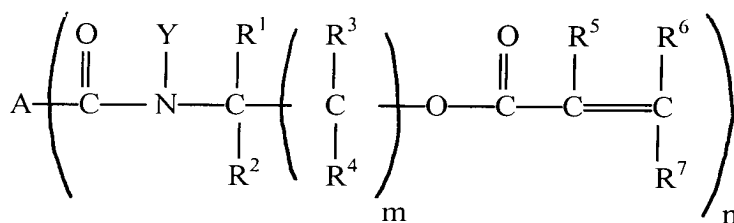
m = 1-4;

with the proviso that when  $n = 1$ ,



wherein polymer P is an ~~addition polymer~~ or a condensation polymer.

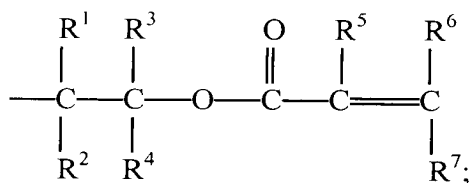
27. (Twice Amended) A radiation curable compound ~~comprising~~ represented by the following formula (I) and which is a mono or multi valent carboxylic acid ester of a  $\beta$ ,  $\gamma$ ,  $\delta$  or  $\epsilon$ -hydroxy-alkylamide group containing compound, ~~in which the carboxylic ester is derived from~~ and an  $\alpha$ ,  $\beta$ -ethylenically unsaturated carboxylic acid, ~~wherein the radiation curable compound is a compound according to formula (I):~~



where:

A = a condensation polymer P;

Y = hydrogen, an alkyl group having from 1 to 8 carbon atoms or



$\text{R}^1, \text{R}^2, \text{R}^3, \text{R}^4$  are, identical or different, hydrogen or a linear, branched or cyclic ( $\text{C}_1$ - $\text{C}_8$ ) alkyl chain;

$\text{R}^5$  = hydrogen, ( $\text{C}_1$ - $\text{C}_5$ ) alkyl,  $-\text{CH}_2\text{OH}$  or  $\text{CH}_2\text{COOX}$ ;

$\text{R}^6, \text{R}^7$  = hydrogen, ( $\text{C}_1$ - $\text{C}_8$ ) alkyl, ( $\text{C}_6$ - $\text{C}_{10}$ ) aryl or  $\text{COOX}$ ;

X = hydrogen or ( $\text{C}_1$ - $\text{C}_8$ ) alkyl;

n = 1-1000 and

m = 1-4;

~~wherein polymer P is an addition polymer or condensation polymer.~~

End of Appendix